INTERMEDIATES CPYRGHT

Source: Chemical Week - 2/28/53, Pg. 75

The Anderson Laboratories (Weston, Michigan) has commenced the commercial production of 6-methoxy-8-aminoquinoline, an intermediate used in the manufacture of antimalarial medicinals.

METHYL TOLUENESULPHONATE 25X1A9a

Source: Oil, Paint & Drug Reporter - 2/2/53, Pg. 4

Methyl Toluenesulfonate, it has been announced, is available for the first time in commercial quantities from the organic chemical division of the Monsanto Chemical Company.

The product, a methyl ester of a high ortho-low para mixture of toluenesulphonic acid, is said to be more stable than methyl paratoluenesulphonate for which it is a replacement. It has been suggested as a catalyst in the preparation of alkyd resins and other organic esters, and in the manufacture of photographic chemicals and pharmaceutical intermediates.

UNSATURATED ALCOHOLS

Source: Chemical Week - 2/14/53, Pg. 40

Laboratory samples of four unsaturated alcohols are now available from the research and development division of Reilly Tar & Chemical Corp. They are: methyl butynol, methyl pentynol; dimethyl hexynol, and dimethyl octynediol. Applications are foreseen by Reilly in the preparation of pharmaceuticals, polymers, insecticides and fungicides. The company, like Air Reduction Chemical Company, makes the compounds from acetylene, is prepared to offer them on a commercial scale.

BIOCHEMICALS

Source: Chemical and Engineering News - 2/9/53, Pg. 599

Bios Laboratories, Inc. is producing the following chemicals:

Chelidonic acid (jervasic acid), is 4-oxo-1,4-pyran-2,6-dicarboxylic acid. It forms pimelic acid on treatment with excess hydriodic acid, and chelidamic acid on treatment with ammonia. It forms a large number of very sparingly soluble salts and is useful for pharmaceutical purposes and in biochemical research.

2,4-Dichloropyrimidine forms 4-pyrimidol on treatment with red phosphorous and dithiouracil with potassium hydrosulfide. It is said to be useful in the preparation of higher pyrimidine derivatives.

RESEARCH INTERMEDIATES

Source: Chemical and Engineering News - 2/9/53, Pg. 599

Columbia Organic Chemicals, Inc., offers the following chemicals which should be of interest as research intermediates: cycloheptyl bromide, 2-hexanol, 4-octanol, cyclopentyl cyclopentanol, 1,4-dibromo-2-butene, 2-and 3-chloropentane, 2,2-dichlorobutane, tetramethylene chloroiodide, and pentamethylene chloroiodide. Available in limited quantity are cycloheptene, isobutyl cyanide, and cyclopentyl cyclopentene.

WATER REPELLENT FOR FABRICS

Source: Chemical and Engineering News - 2/2/53, Pg. 464

Addition of long chain alkyl groups to dye molecules confers water repellency on fabrics which have been dyed with such modified dyestuffs, according to Irvington Varnish and Insulator Company. The company is now producing two phenols which may be used in the production of such dyes. They are meta substituted with 12-carbon alkyl chains. One, known as 3-pentadecyl phenol, hydrogenated Cardanol, has a flaked waxy appearance, and is pink to white in color. The 5-pentadecyl resorcinol, hydrogenated Cardol, is a white crystalline solid.

MONSANTO OFFERS METHYLATING AGENT

Source: Journal of Commerce - 2/27/53

Methyl toluenesulfonate, a methylating agent in dyestuff manufacture, is available for the first time in commercial quantities from Monsanto Chemical Company's Organic Chemicals Division.

The product, a methyl ester of a high ortho, low para mixture of toluenesulfonic acid, is said to be more stable than methyl para toluenesulfonate for which is a replacement.

It also has been suggested as a catalyst in the preparation of alkyd resins and other organic esters and in the manufacture of photographic chemicals and pharmaceutical intermediates.

POLYHYDROXYAMINE

Source: Chemical Engineering - February 1953, Pg. 230

Experimental quantities of white, crystalline n-methylglucamine are now being offered by Commercial Solvents Corporation.

Interesting surface active agents have been prepared from the compound in the company's laboratories and marketed under the trade name Glucaterge. Nonionic and anionic detergents can be prepared by reaction with fatty acids. The resultant products are characterized by imparting high viscosity to solutions, building foam, good detergency, and emulsification properties.

Coupled with diazotized m-chloroanimine, n-methylglucamine is said to produce a dye with excellent fastness on textile materials. Also metal-free phthalocyanines have been prepared economically by heating phthalonitrile and

a caustic alkali in the presence of n-methylglucamine with water soluble or insoluble solid diluents. The pigments resulting from this process are claimed to have superior tinctorial properties in printing inks, paints, and other pigments.

Good fastness in printing vat dyestuffs is said to come of incorporating substances such as n-methylglucamine with vat dyestuffs. The vat dyestuffs may be used in direct printing as well as in discharge and resist printing processes.

I
B. Dyes and Pigments

VERONA CHEMICAL REPORTS OPENING DYESTUFFS DIVISION

Source: Oil, Paint and Drug Reporter - 2/23/53, Pg. 5

The Verona Chemical Company, Newark, New Jersey has announced the opening of a new independent division, to be known as Verona Dyestuffs and located in Union, New Jersey. The division, it was announced, will specialize in fast colors for the textile industry and will offer for sale a full line of imported and domestic dyestuffs, intermediates and auxiliary products. W. L. Swenson is vice-president in charge of the division.

OFFERS NEW LINE OF TEXTILE DYES

Source: Journal of Commerce - 2/20/53

A new line of dyestuffs consisting of mixtures of naphthols and stabilized diazos has been made available to the textile industry by the Hilton-Davis Chemical Company Division, Sterling Drug Inc.

Known as Spectrosols, the dyes are companion products to the line of Spectrolene colors introduced by Hilton-Davis in 1951 and now in use by textile mills.

Of outstanding importance to textile manufacturers is the fact that the newly developed mixtures of naphthols and stabilized diazos are prepared on a "custom-built" basis for individual mills. Dyes are"made up fresh" to the mill specification at the company plants and other area representative plants.

Purpose of this arrangement is to reduce to a minimum the loss of color value due to prolonged storage. It was pointed out that the maximum brilliancy and color value of the dyestuffs are actually assured under this plan.

Many color combinations are said to be available. Prices are based on the Naphthol-Spectrolene combinations used, with no extra charge for mixing.

SEE COLOR RAISING PLASTIC TOY SALES

Source: Journal of Commerce - 2/18/53

More striking and dyanmic color effects will continue to play an in-

SEE COLOR RAILING PLASTIC TOY SALES (cont'd)

creasingly important role in the merchandising and sale of plastic toys, it was predicted yesterday.

The annual sales volume of plastic toys is estimated at between $75 million and $100 million (manufacturers value)-a figure which includes a large volume of plastic toys used as premiums as well as those distributed through retail channels.

Production of plastic toys is said to have gone up between 15 and 20 per cent in 1952, and the volume is expected to be even higher for 1953.

Major raw material suppliers for the plastic industry have come to appreciate the value of color in the sales volume of plastic toys. Many have made research efforts to determine which colors best appeal to the younger set — and the adult who does much of this "impulse" buying.

Children are less fincle about colors than adults, and are more inclined to be loyal to such primary colors as red, yellow, blue and green.

Mr. Faber Birren, color consultant for Monsanto Chemical Company's Plastic Division says that "the new trend toward more luminous colors in toys is part of the 'American frame of mind that has accepted brighter, clearer colors in interior paints, wall papers, towels and blankets.'"

Few colors are the need, but they must be the right ones, fresh and original, he said, adding that flame red, lighter emerald green, sunlight yellow and toy blue colors would be among the dynamic shades of the primaries that might be expected to be the favored ones this year.

DYE PENETRANT LOCATES CRACKS IN SOLID MATERIALS

Source: Chemical & Engineering News - 2/23/53, Pg. 818

Cracks in solid materials show up as red spots, when sprayed with Magnaflux Corp.'s Spotcheck nontoxic dye penetrant.

The product is pressure-can sprayed on the clean surface to be tested. A cleaner is sprayed on, then removed by a quick wipe. An even coat of white developer is brushed on, and inspection follows in a few seconds. The test is recommended for application to local areas of large parts, or in remote locations where only a few parts are to be tested.

DYEING OF TYPE 41 ORLON ACRYLIC FIBER

Source: American Dyestuff Reporter - 1/19/53, Pg. 39

Dyeing of type 41 orlon acrylic fiber is described fully with: acid dyes at the boil; acid dyes above the boil; indogo and selected vat dyes at the boil; and basic dyes above the boil. Best results are obtainable with acid dyes at 250° F. under pressure in presence of cuprous ion.

CANADA - DYE EXPANSION

Source: Industrial Canada - January 1953, Pg. 122

Dominion Color Corporation,Ltd., New Toronto, completed a factory extension to double capacity for production of pigmentary dyestuffs and color pigments to create a domestic source of supply for Canada.

I
C, Pharmaceuticals

NEW ANTIBIOTIC

Source: Chemical Week - 2/14/53, Pg. 40

What Abbott Laboratories calls "the first antibiotic aimed specifically at treatment of one disease" was brought out last week by the North Chicago, Ill. pharmaceutical manufacture. It's fumagillin, goes by the trade name, Fumidil. Abbott says the commercial fledgling "is inactive against the bacteria, fungi and viruses normally in the intestinal tract -- attacks only the amoeba which causes intestinal amebiasis."

Fumagillin, which has been eyed by several antibiotics producing firms is a crystalline material produced during the growth of a strain of the mold Aspergillus fumigatus. Chemically, the antibiotic has the empirical formula $C_{27}H_{36}O_7$, is a weak acid of high molecular weight (472).

ATTACK ON POLIO

Source: Chemical and Engineering News - 2/2/53, Pg. 399

A new polio vaccine has been announced by Harry M. Weaver, research director of the National Foundation of Infantile Paralysis. The vaccine, effective against all three types of polio virus, was developed through cooperative research in several laboratories supported by foundation grants. Vaccine referred to by Dr. Weaver is different from the one recently developed by Lederle Laboratories, which is effective only against the Lansing type virus, or the one announced by Johns Hopkins, which is effective against all three virus types (Lansing, Leon, and Brunhilde). Unlike vaccine prepared at Johns Hopkins from the spinal cords of monkeys, the new vaccine is produced in such non-nervous tissue as muscle, skin and testicular glands, thus eliminating the possibility that the vaccine may produce allergic encephalitis, a disease characterized by deterioration of brain cells. NFIP hopes to have enough vaccine on hand this year to conduct a large-scale test on humans.

PARKE, DAVIS SET TO OFFER NEW ANTI-TB DRUG SOON

Source: Oil, Paint and Drug Reporter - 2/2/53, Pg. 68

Parke, Davis & Co., Detroit, Michigan, has announced that it expects to make available to physicians soon a new anti-tuberculosis drug "viomycin". Parke, Davis scientists started with a soil-sample from Florida in developing "viomycin", an antibiotic. The new drug, it is said has proved to be effective

PARKE, DAVIS TB DRUG (cont'd)

in discouraging the growth of "Mycobacterium tuberculosis", the organism which causes tuberculosis. According to Parke, Davis it also has varied and less intense effects on other bacteria, but apparently is not active against the protozoa, fungi, or viruses which cause other diseases.

ANOTHER ENEMY FOR TB

Source: Chemical & Engineering News - 2/9/53, Pg. 499

Upjohn Co. scientists announce isolation of new streptomyces antibiotics, after two years of research and testing. First found in a soil sample acquired near Kalamazoo, Michigan -- Upjohn's headquarters city -- organism is grown in submerged culture containing cerelose, yeast extract, soya flour, and inorganic salts. Filtered fermentation liquor inhibits both Gram-negative and positive bacteria, but antibiotic crystallized from liquor is mainly active against certain acid-fast and Gram-positive organisms. Pure crystalline product, given generic name of amicetin, has marked antituberculosis activity, superior in some cases to that of streptomycin. Commercialization will await outcome of clinical tests on humans, now under way, but not complete. If and when production seems proper, Eli Lilly and Company, working with Upjohn on antibiotics development, will share discovery under plan similar to that employed with erythromycin.

SULPHA, ANTIBIOTIC DRUGS AGAIN LICENSED BY OIT

Source: Oil, Paint & Drug Reporter - 2/23/53, Pg. 3

The Office of International Trade has resumed the licensing of export shipments of sulpha and antibiotic drugs on a limited scale to meet the needs of the flood areas of Europe. Officials said last week, however, that the curbs on exports are not being entirely lifted.

The agency first began restricting the issuance of licenses for sulpha drugs and antibiotics last November when it was discovered that the drugs were finding their way into Communist bloc countries indluding Red China. Shipments were practically halted in later months while the situation was reviewed with industry representatives and officials of the importing countries. It was stated last week that the review is still going on, but limited shipments are being permitted again to meet emergency situations.

BIOSULFA

Source: Drug Trade News - 1/5/53, Pg. 40

Upjohn Company offers "Biosulfa", a veterinary combination of penecillin, sulfadiazine, sulfamerazine and sulfathiazole in tablet form. The preparation can be used successfully in many bacterial infections of small animals.

SULFANILAMIDE

Source: Oil, Paint and Drug Reporter - 1/26/53, Pg. 5

Merck and Company has completed first production at Flint River plant, Albany, Ga. Part of output will be shipped to Rahway, N. J. for distribution and rest to company's Stonewall plant at Elkton, Virginia for further processing into finished products.

I

D. Plastics, Resins and Rubber

RUBBER CONSUMPTION - JANUARY

Source: The Rubber Manufacturers Association - 2/19/53

 New rubber consumption during the month of January increased 4.45% to 120,742 long tons from the 115,600 long tons consumed in December, according to the monthly report of the Rubber Manufacturers Association, Inc.

Consumption of natural rubber during January increased 6.89% to 47,567 long tons from 44,502 long tons used during December. Use of synthetic rubber amounted to 73,175 long tons, an increase of 2.92% from the previous month's total of 71,098 long tons.

Consumption of reclaimed rubber by the industry was estimated at 24,605 long tons, 2.41% above the 24,025 long tons used during December.

RUBBER GETS TOUGHER

Source: Chemical and Engineering News - 2/2/53 - Pg. 399

The chemist's favored raw materials for synthetic rubber have no part in Goodyear's synthetic announced last week. Formula is based on ethylene and propylene glycol, adipic acid, and a diisocyanate (naphthalene derivatives are used more often). Resulting polyester resumeble Germany's Vulcollan; unlike the German rubber, the Goodyear product does not have to be finished immediately. More diisocyanate is added during processing; no sulfur or other accelerators are used for vulcanization. Carbon black or other reinforcers don't seem to help or hinder properties. R. P. Dinsmore, Goodyear's research chief, says tire treads of the new rubber have two to five times the wear resistance of cold rubber. Resistance to oxidation is superior to both natural and synthetic. Hurdle to overcome: lack of low-cost process for making the diisocyanates. Dinsmore says cost of the polyester rubber may be twice that of GR-S, but that's a guess dependent on outcome of diisocyanate research. GR-S now sells for about 23 cents per pound.

RUBBER CONSUMPTION AT RECORD HIGH

Source: Chemical & Engineering News - 2/23/53, Pg. 736

World consumption of natural and synthetic rubber set a new record of 2,332,500 long tons in 1952, an increase of 20,000 tons over the previous record, reached in 1951. U. S. consumption accounted for 1,260,588 tons, an increase of 46,290 tons over 1951. Foreign consumption, excluding Russia and China, was 925,000 tons, a decline of 37,500 tons and the first decline noted in the post war period. World production consisted of 1,762,500 tons of natural rubber, a 6% decrease from 1951 and 878,500 tons of synthetic, a 2% decrease from 1951.

I
E. Miscellaneous

NO LAG IN SLAG

Source: Chemical & Engineering News - 2/2/53, Pg. 400

Titanium slag, a by-product of Quebec Iron and Titanium Corp. operations, is finding a ready market as a raw material in the manufacture of titanium dioxide pigments. The slag contains 70% titanium dioxide, in contrast to the conventional raw material, ilmenite, which contains only 45 to 55% TiO_2. In addition, the slag constitutes a source of raw material on this continent. Makers of glass fiber also are taking substantial quantities of the titanium slag. Out of five planned furnaces of QI&T, three of these furnaces are now in operation.

II
New Products and Types Approved for Manufacturing

	Code	
March	52433-01	Calco Reduced Cyan Blue GT 55-3325
March	02054-13	Dimethyl Aniline 1.95° Grade-Joliet Arsenal
March	02528-04	Beta Alanine - Refined (Purchased)

III
Publications Committee Approvals

1. "Some Applications of Instruments in the Health, Safety and Pharmaceutical Fields" by C. B. Slichter and J. T. Woods. For oralpresentation at a symposium of the American Instrument Society in New York on February 18, 1953.

2. "Chemistry and History of Anti-coagulants" by J. J. Denton. Lecture to be given at the Gordon Research Conference on Medical Chemistry during the week of August 16, 1953.

3. "The Spectrophotometric Determination of One Component in a Multicomponent System" by Dr. Rieman of Rutgers and Dr. E. Allen for publication.

4. "Beta-Bromo-Alpha-Chloro-Beta-Formylacrylic Acid" by E. Kuh and R. L. Shepard. For publication in the Journal of the American Chemical Society.

5. "Industrial Stream Pollution Control Through Water Conservation" by L. L. Hedgepeth. For presentation at the A.C.S. meeting in Los Angeles, March 15-20.